

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number
WO 2005/004522 A1

(51) International Patent Classification⁷: **H04Q 7/38**

(21) International Application Number:
PCT/GB2004/002817

(22) International Filing Date: 30 June 2004 (30.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/484,977 3 July 2003 (03.07.2003) US

(71) Applicant (for all designated States except US): **NORTEL NETWORKS LIMITED** [CA/CA]; 2351 Boulevard Alfred Nobel, St Laurent, Québec H4S 2A9 (CA).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **EDWARDS, Keith** [GB/GB]; 17 Lodge Close, Hutton Essex CM13 1SW (GB).

(74) Agent: **ANDERSON, Angela**; IP Law Group, Nortel Networks Limited, London Road, Harlow Essex CM17 9NA (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

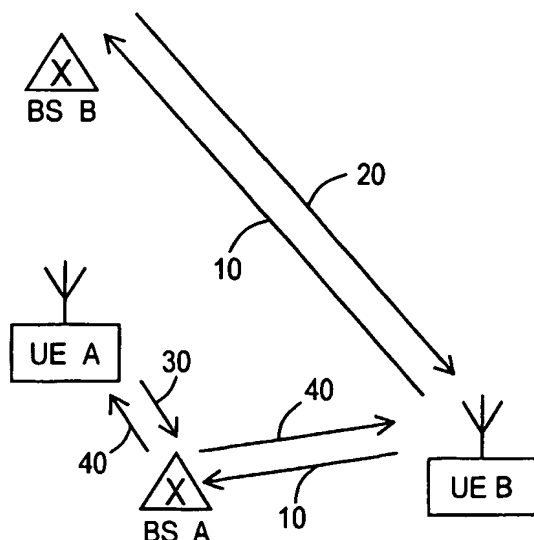
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **UPLINK INTERFERENCE REDUCTION IN WIRELESS COMMUNICATIONS SYSTEMS**



(57) Abstract: A wireless communications system has a plurality of uplink and downlink channels available for use. Channels are distributed among different operators who may plan their networks in a non-ideal manner. A terminal uses an uplink channel and a downlink channel selected from those available and performs a method to check whether it is causing interference to other users of the system. The method determines whether the terminal is transmitting at a power which may cause interference to an adjacent uplink channel. If so, the terminal determines which downlink channel is associated with the adjacent uplink channel and monitors that downlink channel. The terminal may then operate in a manner which will reduce interference.

WO 2005/004522 A1